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ABSTRACT

EQUALS is a teacher education program that helps elementary and secondary educators acquire methods and materials to attract minority and female students to mathematics. The EQUALS program supports a problem-solving approach to mathematics which has students working in groups, uses active assessment methods, and incorporates a broad mathematics curriculum presented in a variety of contexts. This unit is one of a set of five Investigations Units that are designed to give students sustained work which involves higher levels of thinking, planning their own strategies, and communicating their ideas. The unit overview presents some helpful ideas about groupwork, language issues, assessment, grades, manipulatives, and calculators. Investigations sessions include: (1) How Long Are Size 18s?; (2) Finding the Growth Factor: Growth Sequences with a Calculator; (3) Scaling Up the Human Body: Adding vs. Multiplying, Distortion vs. Proportion; (4) Shrinking; (5) Infinite Sequences of Similar Trapezoids; (6) Tripling a Tree's Height in Four Years; and (7) Growing in One Step and Extending Linear and Exponential Growth. The section on Projects includes a group project on predicting world population, individual project options, and individual projects. Blackline masters, Spanish translations of selected student worksheets, and references are also included. (JRH)

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